

# Home

## Highlights

### A Short History of the NIH


How NIH grew from a one-room laboratory to become the largest biomedical research agency in the world.

*"Hurry up experiments...  
Work—Work—Work."*

## Working Out the Code


Nirenberg's method of testing synthetic RNA in a cell-free system was a key technical innovation. Once this technique for decoding the relationship of mRNA to amino acids was publicly announced in 1961, however, there was much more to learn. First, scientists had to determine the exact combinations of nucleotide bases (codons) that specify each amino acid on a protein chain. Second, they had to sequence the order of the bases in the codons to complete the understanding of the genetic code.

For the experiment to work, Nirenberg needed some help from his NIH colleagues in several areas.




**Robert G. Martin** joined the de-coding race at NIH

Robert Martin of the National Institute of Arthritis and Metabolic Diseases (NIAMD) joined Nirenberg in his quest to decipher the genetic code. He helped to obtain special synthesized RNA with random combinations of bases.




**Drs. Maxine Singer and Leon Heppel** provided Nirenberg with synthetic RNAs of defined sequence.


More than 20 other scientists and lab technicians helped Nirenberg; they included Philip Leder, C. Thomas Caskey, Merton Bernefeld, and others.



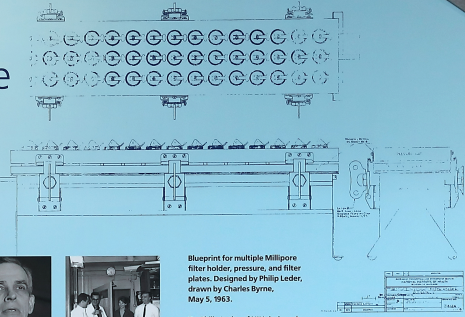
**Dr. DeWitt Stetten, Jr.**, director of NIAMD, proudly called this period of collaboration the scientists' "finest hour."



In 1963 Dr. Philip Leder joined Nirenberg's research team to work on the base compositions of codons.

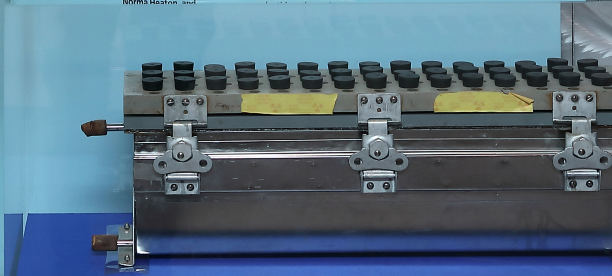


Nirenberg and NIH colleagues who helped decipher the code. (Left to right): Dr. W. French Anderson, lab technician



Blueprint for multiple Millipore filter holder, pressure, and filter plates. Designed by Philip Leder, drawn by Charles Byrne, May 5, 1963.

Dr. Philip Leder of NIH designed the multiple Millipore filtration instrument, nicknamed the "multi-plater." With this instrument, up to 45 samples could be filtered before the filters had to be changed. This instrument streamlined the process of determining the genetic code.



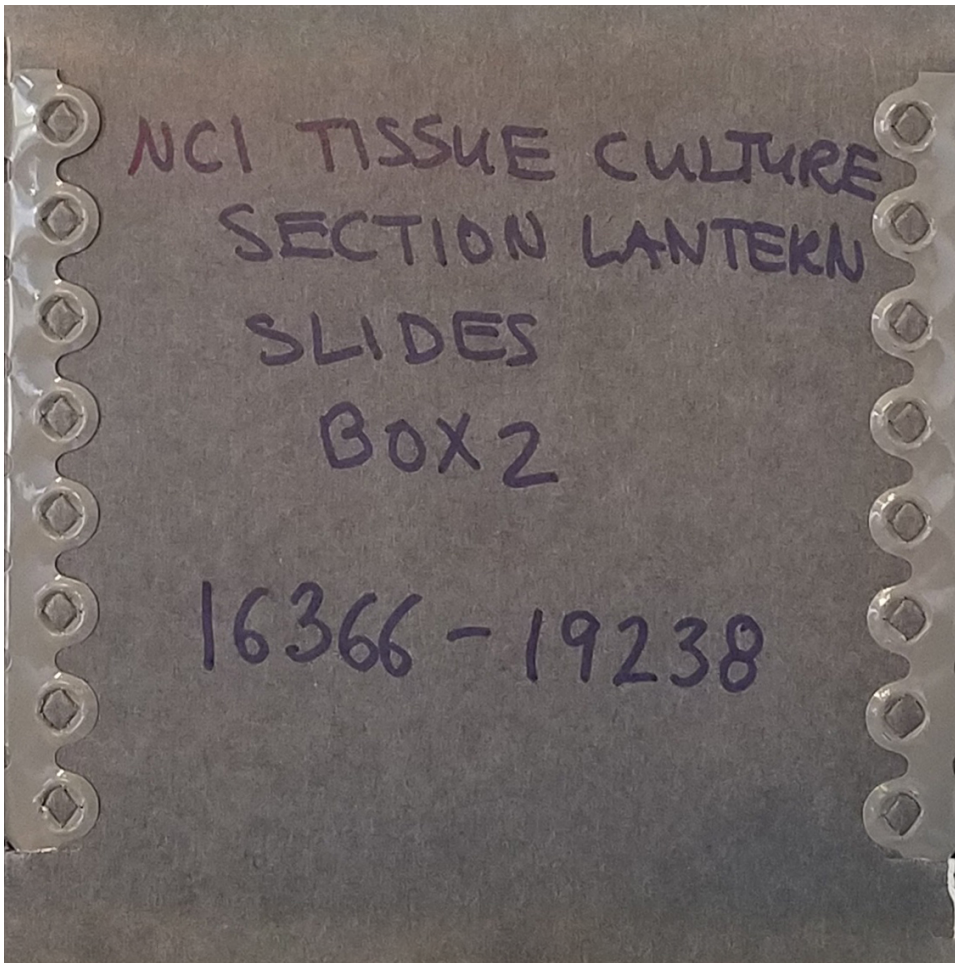
Multiple Millipore Filtration Instrument, ca. 1964.

Sethon Museum

Sometimes, discovering new knowledge requires new methodologies and new methodologies. To speed up the processing of samples that would potentially reveal nucleotide codon assignments, Dr. Philip Leder, a geneticist at NIH, created this multiple Millipore filtration instrument that could simultaneously filter 45 samples.

## Exhibits

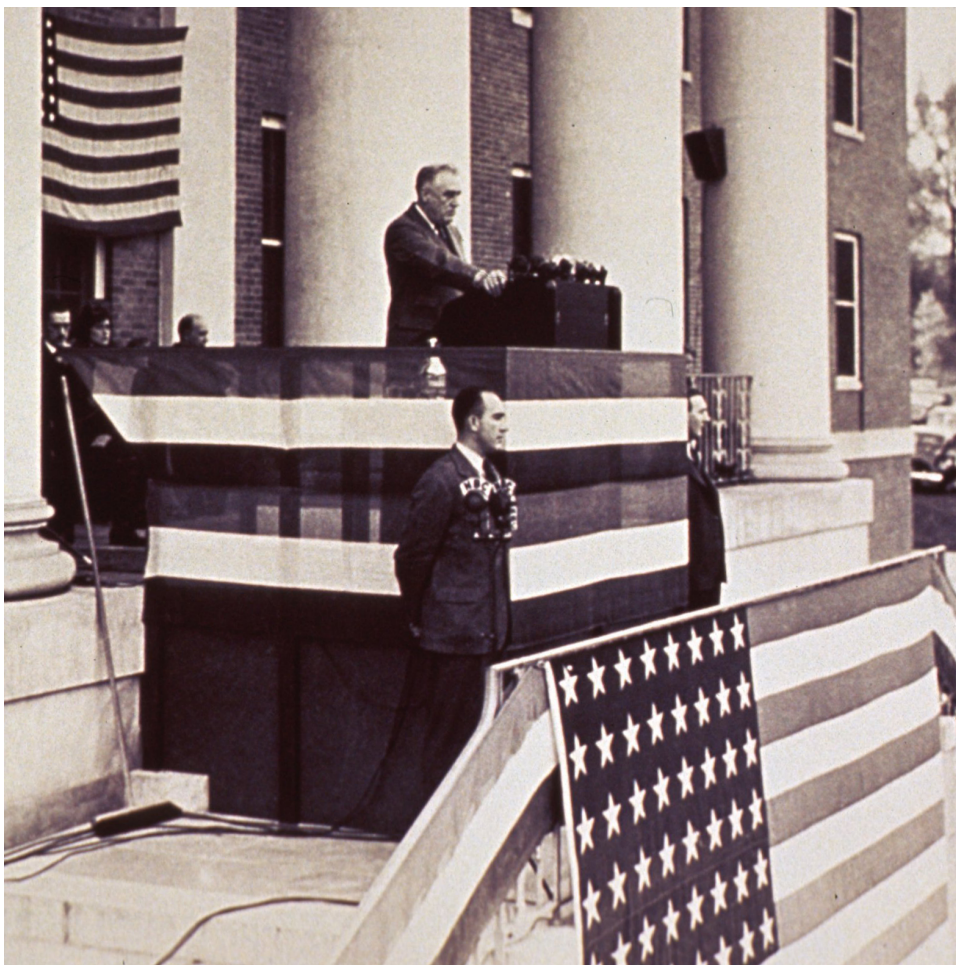
The DeWitt Stetten Jr. Museum of Medical Research, established in 1986, preserves and interprets the material culture of the scientific work of the NIH. In conjunction with the broader Office of NIH History, the Stetten Museum collects biomedical research instruments, photographs, videos, journals, oral histories, and objects related to the general history of the NIH, including architectural artifacts, artwork, and clothing.



## Collections

The Office of NIH History and Stetten Museum holds many collections: objects, images, and documents, and books. We have over 3,100 objects and thousands of photographs related to NIH history. There are many ways to search our collections.





## Archives

The Office of NIH History and Stetten Museum was established to increase historical understanding of the National Institutes of Health and biomedical science among NIH staff, scholars, and the general public. The Office serves as a source of information for NIH history by maintaining a subject and biographical ready-reference collection.





## Canyon Creek Schoolhouse Laboratory 100<sup>th</sup> Anniversary

In September 1921, state and federal scientists rented a schoolhouse in Montana to set up a laboratory. They worked there only seven years, but what they did made history: created a vaccine for a highly fatal disease; added to our knowledge of diseases carried by ticks; and established the forerunner of the Rocky Mountain Laboratories.





## Call for Stories: Behind the Mask

COVID-19 has impacted the NIH community in many ways—from researching and providing information about the disease, developing therapeutics and vaccines, caring for patients in the Clinical Center, and re-configuring how we perform our jobs. The Office of NIH History and Stetten Museum seeks reflections, documents, photographs, and objects about how those at NIH have experienced the COVID-19 pandemic.



The National Institutes of Health (NIH) continues to be a leader in the fight against SARS-CoV-2, the virus that causes COVID-19, and the Office of NIH History and Stetten Museum (ONHM) is documenting how NIH employees are making history. NIH is more than just centers, institutes and laboratories—it is over 40,000 people supporting NIH's

biomedical and behavioral research. The ONHM is preserving your individual stories, whether in the form of letters, photographs, or clinical instruments, pop cultural objects, or personal artifacts. A few of these are presented here. Visit the ["Behind history.nih.gov"](http://behindhistory.nih.gov) to find out how you can become a part of the history of medicine.

During the pandemic, the NIH captured the public's attention like never before. NIH research inspired hope around the globe in the form of tests, treatments, and vaccines while NIH leaders became familiar faces in the news. As the NIH became a household name and Americans expressed their hopes and fears, the lines between art, pop culture, and commerce were sometimes blurred.

At the NIH, laboratories quickly transitioned to study SARS-CoV-2 and the disease it causes, COVID-19. Researchers drew on previous knowledge and networks designed around other infectious diseases, such as HIV/AIDS and Ebola. Many at NIH collaborated with industries, universities, and other government agencies to develop tests, treatments, and vaccines while other NIH staff were deployed to help fight the pandemic around the world.

The Office of NIH History is collecting personal examples below to show the impact that COVID-19 has had on us. We are collecting:

- podcasts, graphic novels, and personal letters



The NIH has been at the forefront of the fight against COVID-19. The Office of NIH History and Stetten Museum is collecting NIH staff stories, scientific and personal objects, photos, artwork, etc. to document this important time in history. See a small selection on display in Building 31's main hallway. And contact us if you'd like to do an interview about your work or if you have any objects or images to donate.



### In Memoriam: [Barbara Faye Harkins, Archivist](#)

Photo by Hank Grasso

We're sad to announce the death of our long-time archivist, Barbara Faye Harkins. After retiring in March 2020, she was greatly missed by our patrons. Now she will be greatly missed by us.

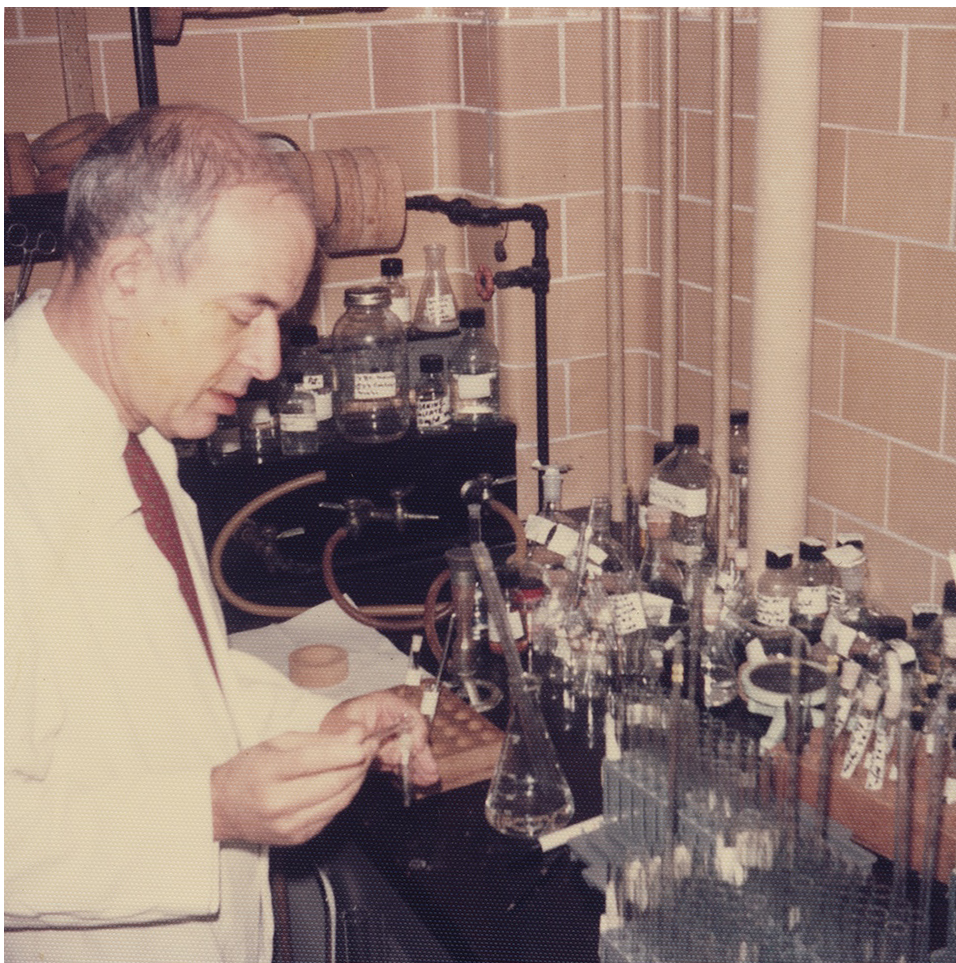


## Remembering Dan Lednicer, Volunteer Extraordinaire

Photo Courtesy of the Lednicer Family

We celebrate the life, work, and friendship of Daniel Lednicer, Ph.D., who joined our office as a volunteer in 2006 and actively contributed to our mission until his death last week at the age of 91. He is greatly missed.





## Dr Herbert Tabor Dies 1918-2020

Photo Courtesy of the Tabor Family

We are sad to relay news of the passing of Herbert Tabor, M.D., the world's foremost authority on the enzymatic pathways of polyamines, as well as an esteemed editor of the Journal of Biological Chemistry for 40 years and, until his death at age 101, a senior principal investigator in the NIDDK Laboratory of Biochemistry and Genetics, where he had served as lab chief until 1999.

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